

IN THE SPECIFICATION:

On page 1, above line 1, please insert the following paragraph:

--CROSS REFERENCE TO RELATED APPLICATIONS

Applicants claim priority under 35 U.S.C. §119 of German Application No. 102 34 823.5 filed on July 31, 2002. Applicants also claim priority under 35 U.S.C. §365 of PCT/EP2003/008335 filed on JULY 29, 2003. The international application under PCT article 21(2) was not published in English.--

On the same page, please replace the first paragraph with the following:

--The invention relates to a method for dividing the bit rate of QPSK signals into at least two sub-channels having band width limited filters in the modulator and the demodulator, by means of splitting the ~~spectrum~~ bit current of the QPSK signals.--

On page 1, please replace the 2nd paragraph with the following:

--Furthermore, the ~~The~~ basics of the PSK method are known

from the technical manual "Nachrichtentechnik" [Communications technology] by E. Herter/W. Lörcher, 5th edition, which appeared in the Hanser Verlag [publishing company] in 1990, pages 110 ff., and the implementation of PSK modulators and demodulators and frequency multiplication were described there. Thus it is possible to generate a carrier $2f_T$ from a 2-PSK signal, by means of squaring, from which the desired carrier f_T results afterwards, by means of frequency division. For this, it is indicated that in general, squaring has to occur in the case of an N-PSK signal $1d(n)md$. During squaring, the phase angles are doubled. After the first squaring step at 2-PSK, the signal therefore is given the phase position 0 and 360° . But since these phase positions are the same, the spectrum of the signal that has been squared twice contains contributions, after the phase angle doubling, which point in the same direction. Seen spectrally, this means that the desired line is reached at a multiple of the original carrier frequency f_T , for example at four f_T . The reference carrier of the frequency f_T that is obtained by means of frequency division, in this connection, has a phase that is displaced by $n \times \frac{\pi}{2}$ ($n=0..3$), as compared with the correct zero phase.--

On the same page, page 1, between the 1st and 2nd paragraph, please insert the following paragraphs:

--A method of the type is known from IEEE 1999, pages 233 to 238, which method indicates orthogonal pulse shapes in three different ways. In the case of the first method, a low-pass having Nyquist flanks is used, which is operated at half the possible bit rate. The pulse that is orthogonal to this is implemented by means of a time shift. The spectra of the two pulses lie in the same frequency range. Use on multi-carrier systems is not provided. The second method that is used also has the result that the spectra lie in the same frequency range. With the third method, a duobinary signal is generated, the pulse responses of which are limited in terms of time, so that the spectra theoretically reach into infinity. In this connection, the second pulse is also time-shifted, which leads to the spectrum that lies in the same frequency range.

--Four orthogonal pulse shapes that can be transmitted in the same channel are known from IEEE 1998, pages 63 to 66. These are attributed to the discrete prolate spheroidal sequences.

--In the manual by Bocker, Peter, "Datenübertragung" [Data Transmission], Volume I, Fundamentals, 2nd edition 1983, Berlin, which appeared in the Springer Verlag [publishing company], ISBN 3-540-12117-X, the Nyquist conditions in the case of a data transmission method are discussed on pages 110 to 124. On page 118 ff., the partial response method is described. On pages 144-

150 of the manual, amplitude modulation with one-sided band transmission and with remaining side band transmission are described.

--In the manual by J. Huber: "Trelliscodierung" [Trellis Coding], which appeared in the Springer Verlag in 1992 under the series Nachrichtentechnik [Communications Technology], 21, ISBN 3-540-55792-X, modulation with time-limited signal elements in the coding and modulation of pulses is described on page 12, furthermore digital pulse amplitude modulation, which is also used in the inventive method, is described on page 13 ff.

--Modulation systems for QPSK, MSK, SFSK, and DSFSK signals are furthermore known from IEEE Transactions on Communications, Vol. 42, No. 2/3/4, February/March/April 1994, pages 1465 ff.--

IN THE ABSTRACT

Please add an Abstract of the Disclosure on its own separate page attached hereto.